



MARICOPA COUNTY
Department of Transportation

MEMORANDUM

Date: January 6, 2016

To: MAG Specifications and Details Committee

From: Robert Herz, MCDOT Representative

Subject: Add to Section 106.2 the requirements for certificate of compliance and certificate of analysis. **Case 16-02**

PURPOSE: Define the requirements for the certificate of compliance and the certificate of analysis referenced in Section 106.2 and other sections of the MAG specifications. Modify section **717.2.1.2 Crumb Rubber** to delete references to ADOT specifications for certificates of compliance.

REVISIONS: Add section **106.2.1 Certificate of Compliance**, add section **106.2.2 Certificate of Analysis**, and modify section **717.2.1.2 Crumb Rubber**.

SECTION 106 - CONTROL OF MATERIALS

106.2 SAMPLES AND TESTS OF MATERIALS:

All materials to be incorporated in the work may be subject to sampling, testing and approval, and samples furnished shall be representative of the materials to be used. The Engineer may select samples, or may require that samples be delivered by the Contractor to a laboratory designated by the Engineer.

The Contracting Agency will pay for the initial or normal test required by the Engineer to guard against unsuitable materials or defective workmanship. Additional tests, required due to failure of the initial or normal test(s), shall be paid for by the Contractor. The Engineer will designate the laboratory which will accomplish the additional test(s).

The procedures and methods used to sample and test materials will be determined by the Engineer. Unless otherwise specified, samples and tests will be made in accordance with either: the Materials Testing Manual of the Contracting Agency; the standard methods of AASHTO or ASTM, which were in effect and published at the time of advertising for bids.

The laboratory responsible for the test shall furnish at least one copy of the test results to the Contracting Agency or his designated representative, to the Contractor, and to the appropriate material supplier.

With respect to certain manufactured materials, the Engineer may permit the use of some materials prior to sampling and testing provided they are delivered with either a certificate of compliance or analysis or both, stating that the materials comply in all respects with the requirements of the specifications. These certificates shall be furnished in triplicate and clearly identify each delivery of materials to the work area. The certificates shall be signed by a person having legal authority to bind the supplier or manufacturer.

106.2.1 Certificate of Compliance: A Certificate of Compliance shall be submitted on the manufacturer's or supplier's official letterhead, and shall contain the following information:

1. The current name, address, and phone number of the manufacturer or supplier of the material or equipment.
2. A description of the material or equipment supplied.
3. Quantity of material represented by the certificate.
4. Means of material identification, such as label, lot number, or marking.
5. A statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state the name of the specific cited specifications, such as AASHTO M 320, ASTM C494, or specific table or subsection of the Specifications or Special Provisions.
6. A statement that the individual identified in item seven below has the legal authority to bind the manufacturer or the supplier of the material.
7. The name, title, and signature of the responsible individual. The date of the signature shall also be given.

Each of the first six items specified above shall be completed prior to the signing of the certificate as defined in item seven. No certificate will be accepted that has been altered, added to, or changed in any way after the authorized signature has been affixed to the original certificate. However, notations of a clarifying nature, such as project number, contractor, or quantity shipped are acceptable, provided the basic requirements of the certificate are not affected.

A copy or facsimile reproduction of the original certificate will be acceptable; however, the original certificate shall be made available upon request.

106.2.2 Certificate of Analysis: A Certificate of Analysis shall include all the information required for a Certificate of Compliance and, in addition, shall include the results of all tests required by the specifications.

SECTION 717 - ASPHALT-RUBBER ASPHALT CONCRETE

717.2.1.2 Crumb Rubber: Crumb Rubber shall meet the gradation requirements as shown in Table 717-1 below when tested in accordance with Arizona Test Method 714.

TABLE 717-1	
GRADATION REQUIREMENTS OF CRUMB RUBBER	
Sieve Size	Percent Passing Type B
2.36 mm (#8)	
2.00 mm (#10)	100
1.18 mm (#16)	65 - 100
600 µm (#30)	20 - 100
300 µm (#50)	0 - 45
75 µm (#200)	0 - 5

The crumb rubber shall have a specific gravity of 1.15 ± 0.05 and shall be free of wire or other contaminating materials, and shall contain not more than 0.5 percent fabric. Calcium carbonate, up to four percent by weight of the crumb rubber, may be added to prevent the particles from sticking together.

Crumb rubber shall be processed at ambient temperature from whole scrap tires or shredded tire materials. Use of crumb rubber granules produced from a cryogenic process is prohibited. The tires from which the crumb rubber is produced shall be from automobiles, trucks, or other equipment owned and operated in the United States.

Certificates of Compliance ~~conforming to Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05~~ shall be submitted. ~~In addition, the Certificates shall that confirms that the rubber is a crumb rubber, derived from processing at ambient temperature, whole scrap tires or shredded tire materials; and the tires from which the crumb rubber is produced is taken from automobiles, trucks, or other equipment owned and operated in the United States. complies with the gradation, specific gravity, and contaminating materials of this specification. The Certificates shall also verify: that~~

- The processing does not produce, as a waste product, casings or other round tire material that can hold water when stored or disposed of above the ground.
- The crumb rubber ~~to be used in ARB shall be the type is~~ produced through a process of mechanical grinding at ambient temperature. ~~Use of crumb rubber granules produced from a cryogenic process is prohibited.~~
- The tires from which the crumb rubber is produced were from automobiles, trucks, or other equipment owned and operated in the United States. ~~(Certificates of Compliance conforming to Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05 shall be submitted.)~~

REFERENCE INFORMATION:

MAG References to 'Certificates of Compliance':

Lime Stabilization or Modification of Subgrade Section 309.2.3 Lime Slurry

(A **certificate of compliance** shall be provided to the Engineer for each load of lime applied at the project.)

Microsurfacing Specifications Section 331.2 Materials (**Certificates of Compliance** shall accompany each delivery of emulsion.)

Concrete Structures Section 505.5.4.2 Anchoring Materials (The Contractor shall submit **Certificates of Compliance or Analysis**, complete with supporting documentation, to the Engineer for all epoxy materials to be used for anchoring dowels on a specific project, in accordance with the requirements of Section 106.2.)

Section 505.6.3.3 Construction Requirements, paragraph (1) General (**Certificates of Compliance** conforming to the requirements of Section 106.2 shall also be submitted by the Contractor.)

Table 711-2, Note 4 (The blend percentages shall be listed on the **Certificate of Compliance** by the manufacturer.)

Asphalt-Rubber Asphalt Concrete Section 717.2.1.2 Crumb Rubber (**Certificates of Compliance** conforming to Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05 shall be submitted.)

Steel Reinforcement Section 727.1 General (The Contractor shall furnish 3 certified mill test reports or **certificates of compliance** for each heat or size of steel which can be clearly identified with the lot.)

Geosynthetics Section 796.3 Test and Certification Requirements (**Certificates of compliance** shall be submitted to the engineer upon delivery of material for use on a specified project.) and (Testing methods and results shown in the **certificate of compliance** shall conform to the listed specifications for the proposed geosynthetic use.)

Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05

(106CERT, 09/14/12 the Standard Specifications is revised to read:)

SECTION 106 CONTROL OF MATERIAL:

106.05 Certificates:

(A) General:

The contractor shall submit to the Engineer an original or copy of either a Certificate of Compliance or a Certificate of Analysis, as required, prior to the use of any materials or manufactured assemblies for which the specifications require that such a certificate be furnished.

Certificates shall be specifically identified as either a "Certificate of Compliance" or a "Certificate of Analysis".

The Engineer may permit the use of certain materials or manufactured assemblies prior to, or without, sampling and testing if accompanied by a Certificate of Compliance or Certificate of Analysis, as herein specified. Materials or manufactured assemblies for which a certificate is furnished may be sampled and tested at any time, and, if found not in conformity with the requirements of the plans and the specifications, will be subject to rejection, whether in place or not.

Certificates of Compliance and Certificates of Analysis shall comply with the requirements specified herein, the ADOT Materials Testing Manual, and applicable ADOT Materials Policy and Procedure Directives.

(B) Certificate of Compliance:

A Certificate of Compliance shall be submitted on the manufacturer's or supplier's official letterhead, and shall contain the following information:

- (1) The current name, address, and phone number of the manufacturer or supplier of the material.
- (2) A description of the material supplied.
- (3) Quantity of material represented by the certificate.
- (4) Means of material identification, such as label, lot number, or marking.
- (5) A statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state compliance with the cited specification, such as AASHTO M 320, ASTM C 494; or specific table or subsection of the Arizona Department of Transportation Standard Specifications or Special Provisions. Certificates may cite both, if applicable.
- (6) A statement that the individual identified in item seven below has the legal authority to bind the manufacturer or the supplier of the material.
- (7) The name, title, and signature of the responsible individual. The date of the signature shall also be given.

Each of the first six items specified above shall be completed prior to the signing of the certificate as defined in item seven. No certificate will be accepted that has been altered, added to, or changed in any way after the authorized signature has been affixed to the original certificate. However, notations of a clarifying nature, such as project number, contractor, or quantity shipped are acceptable, provided the basic requirements of the certificate are not affected.

A copy or facsimile reproduction of the original certificate will be acceptable; however, the original certificate shall be made available upon request.

(C) Certificate of Analysis:

A Certificate of Analysis shall include all the information required for a Certificate of Compliance and, in addition, shall include the results of all tests required by the specifications.